

DISCUSSION OF THE AMENDMENT

The claims, where applicable, have been amended by deleting the word “positive” before “electrode”, since the invention is drawn to units which may be used with a positive electrode or a negative electrode. In addition, Claim 1 has been amended (1) to recite that the claimed separator-electrode unit is capable of functioning as a separator-electrode unit in a lithium battery, and (2) by changing “a” to --an average-- for particle size (D_k), as supported by original Claim 5. Finally, Claim 30 has been amended to recite that the battery is a lithium battery.

No new matter is believed to have been added by the above amendment. Claims 1-28, 30 and 31 remain pending in the application. Of these claims, Claims 1-12, 30 and 31 are active; Claims 13-28 stand withdrawn from consideration, but are rejoivable.

REMARKS

The rejection of Claims 1-6, 11, 12, 29 [sic] under 35 U.S.C. § 102(b) as anticipated by WO 99/15272, using US 6,299,778 (Penth et al) as an accurate English translation, is respectfully traversed. (Applicants note that Claim 29 has been previously canceled.)

As recited in above-amended Claim 1, an embodiment of the present invention is a separator-electrode unit capable of functioning in a lithium battery as a separator-electrode unit, the unit comprising a porous electrode and a separator layer applied to said porous electrode, wherein the separator-electrode unit comprises an inorganic separator layer which comprises at least two fractions of metal oxide particles which differ from each other in their average particle size and/or in the metal, the separator layer comprising metal oxide particles having an average particle size (D_g) which is greater than the average pore size (d) of the pores of the porous electrode that are adhered together by metal oxide particles having an average particle size (D_k) which is smaller than the pores of the porous electrode.

Penth et al is drawn to a catalytically active permeable composite material, method for producing the composite material, and use of the composite material. The composite material of Penth et al comprises a porous, permeable support or carrier in which a particular inorganic component is applied on at least one side of the support or carrier and inside the support or the carrier (column 2, lines 8-15). However, since the present invention now requires that the claimed separator-electrode unit be capable of functioning as a separator-electrode unit in a lithium battery, it necessarily follows that the terms “separator layer” and “electrode” are functional limitations of the claims. While Penth et al discloses a number of utilities for their catalytically active-permeable composite material, use in a lithium battery is neither disclosed nor suggested. Indeed, the only disclosure of an anode or a cathode is that the composite of Penth et al can be used as a catalyst carrier, whereby the catalyst carrier has an electric field connected to it and the catalyst carrier is connected as an anode or cathode

(column 11, lines 13-17). Clearly, Penth et al does not disclose the types of materials that would be used for electrodes in lithium batteries, such as disclosed in the specification herein at page 12, line 3 through page 13, line 16. Accordingly, it is respectfully requested that this rejection be withdrawn.

The rejection of Claims 7-10 and 30 under 35 U.S.C. § 103(a) as unpatentable over Penth et al in view of US 6,287,720 (Yamashita et al), is respectfully traversed. The disclosures and deficiencies of Penth et al have been discussed above. Yamashita et al does not remedy these deficiencies. Indeed, since Penth et al discloses and suggests nothing about a lithium battery, one skilled in the art would not look to the battery art to solve any problem associated with Penth et al. Nevertheless, the battery of Yamashita et al requires an organic binder in the separator thereof (column 7, lines 59-65 and the Examples). Thus, even if Penth et al were combined with Yamashita et al, the result would not be the presently-claimed invention, which requires an **inorganic** separator layer. Accordingly, it is respectfully requested that this rejection be withdrawn.

The provisional rejection of Claims 1-6 on the ground of nonstatutory obviousness-type double patenting over Claims 22, 26 and 28-34 of copending Application No. 10/575,734, is respectfully traversed. The claims of the copending application are drawn to a capacitor. The Examiner has not explained why a separator-electrode unit capable of functioning as a separator-electrode unit in a lithium battery would be obvious over a capacitor comprising a separating layer present on a carrier, even when the carrier is an electrode configured for use as an electrode in a capacitor. Accordingly, it is respectfully requested that this rejection be withdrawn.

All of the presently-pending and active claims in this application are now believed to be in immediate condition for allowance. The Examiner is respectfully requested to rejoin

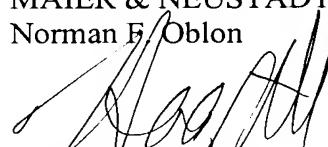
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the non-elected claims, and in the absence of further grounds of rejection, pass this application to issue with all pending claims.

Respectfully submitted,

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